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THE LAND OF CEYLON

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Ceylon, tho one of the world's smaller islands, is one of the best known.[1] Almost every visitor, from the Buddhist pilgrims of ancient times[2] to recent travellers,[3] has written of his impression. Most of these would agree with Marco Polo's statement that "Ceylon is for its size the finest island in the world."

The beauty of the land captivates the visitor. For example, the landscape of Kandy in the hills of central Ceylon is delightful. The shimmering lake, formed by the damming of a small mountain stream, reflects a constantly changing pattern of cumulous clouds and blue sky. The surrounding hills are clothed with lush tropical vegetation. Tucked away in the dense forest are simple thatched homes with nearby fruit and vegetable patches. Intricately terraced paddy fields are laid out like jig-saw puzzles along the valleys. On some hill slopes the forest has been replaced by tea bushes planted

[1] Geographers have studied Ceylon in some detail. Two books, prepared for the teaching of local geography to the students in the islands, are especially noteworthy. Elsie K. Cook, a British geography teacher, first went to Ceylon in 1924 as an advisor to the Buddhist school system. She prepared *A Geography of Ceylon* (Macmillan and Company, Madras, London, 1931, 360 pages). S. F. de Silva, a native of Ceylon who has spent many years in training geography teachers in the Ceylon Government Training College, Colombo, wrote *The New Geography of Ceylon* (The Colombo Apothecaries' Company, Colombo, I Ed., 1936, III Ed., 1943, 234 pages). Both of these books are excellent and have been used as the basis of this article. These writers and many other local geographers are members of the Ceylon Geographical Society which has recently started a publication, *Bulletin of the Ceylon Geographical Society*, another source of pertinent geographic data.

[2] Fa-Hsien, A.D. 399-414, a Chinese scholar, travelled thru the sacred lands of Buddhism in order to copy and carry back to China some of the sacred texts. He wrote a *Record of Buddhistic Kingdoms* (James Legge, Trans, Clarendon Press, Oxford, 1886).

[3] During the war I was stationed from April to August, 1944, at Headquarters, Southeast Asia Command, in Kandy, Ceylon. During that period I had an opportunity to see something of the island, tho my work dealt with areas quite far distant from Ceylon.

in symmetrical rows. In the religious center of Kandy temple drums boom out loudly on moonlight nights when the hubbub of commercial life has died away. The gongs and chants may drown out the chatter and jazz in the tourist hotels and summer homes that crowd around the lake. Thruout the day and early evening the paths and streets are full of people walking or riding in various conveyances ranging from packed jitney buses to ox-drawn carts. In a land of colorful dress no one is more striking than the Buddhist priest clothed in a brilliant orange robe, his bald pate shielded from the bright sun by a silken umbrella. However, the time of greatest beauty is at night when man is still. The wind and sky, the hills and streams, the forest and flowering vines seem unmodified by his activities.

The Position of Ceylon

Located at the tip of the Indian peninsula, the pear-shaped island of Ceylon, 25,332 square miles in area, commands the trade routes from Europe to the East. Thruout the early centuries of our era the goods and ideas of China and the Indies were exchanged at Ceylon with those of the Near East and India. Later, to control this strategic trade center, European powers seized and held the island. Being so close to India it is natural that many of the people should be descendants of migrants and invaders from southern India. However, Ceylon's insular character has enabled the island to maintain a separate entity from India, culturally and politically, thruout most of its history. Today Ceylon's position enhances its importance in the world. The island is astride the British 'life-line' thru the Mediterranean to Singapore and Australia. Round-the-world steamers of all nations make Colombo a port of call. The naval and air base at Trincomalee played a significant role during the war. In peace time aircraft will use Ceylon's air ports as stations on the way to and from Southeast Asia, Australia and the rest of the world.

The Landforms of Ceylon

Ceylon is one of the oldest segments of the earth's crust. Except for two small patches of Jurassic sandstones and some coastal deposits of Miocene limestone, all of the basic formations of the island are ancient complex rocks. Granites, crystalline limestones and other rocks were highly metamorphosed in Archean times into a series called the Khondalites; these overlie an even older gneissic series. The Khondalites were complexly folded into a great syncline

with its axis roughly north and south, so that the coast-line generally parallels the form of the syncline. These basic rocks on Ceylon can be correlated with the formations in southern India. Structurally, therefore, Ceylon should be considered as a part of the Deccan peninsula. It was only in recent geologic time that the island was severed from the mainland.

The striking aspect of the relief of Ceylon is the three erosional levels in which the landforms may be grouped. Geologists hold differing views as to the formation of these erosion surfaces or peneplains. Adams[4] believes that they are the result of successive uplifts of the whole land mass. Wadia[5] argues that they are the result of "positive earth-movements, lifting them vertically in two intermittent, widely separated stages." The erosional levels are sharply divided from one another. Other geographic elements naturally reflect these contrasts in land forms.

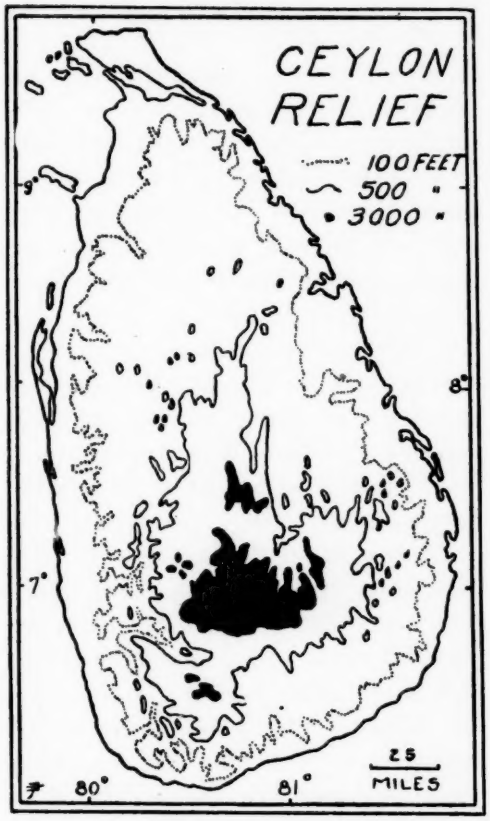

Fig. 1. The Relief of Ceylon. This generalized relief map only hints at the local variations in elevation and does not show the extent of the peneplains.

The coastal margins, or lowest erosion level, is a flat and extensive plain. On this surface only a few isolated monadnocks, usually of more resistant rock, go over two or three

[4] F. D. Adams, "The Geology of Ceylon," *Canadian Journal of Research*, Vol. I, 1929, pp. 425-511. Another geologist, J. S. Coates, takes some exception to Adams' views on the rock structure of Ceylon, tho he makes no extended discussion of the physiographic history of the island. ("The Geology of Ceylon," *Ceylon Journal of Science, Section B*, Vol. XIX, Part 2, August, 1935, p. 101-187, XXII Plates.)

[5] D. N. Wadia, "The Three Superposed Peneplains of Ceylon, Their Physiography and Geological Structure," *Records of Department of Mineralogy, Professional Paper No. 1*, Ceylon Government Press, Colombo, 1943, p. 25-32. Dr. Wadia has prepared in another article in the same *Paper* a complete "Bibliography of Geology of Ceylon."

hundred feet above sea level. Most of this surface is in the northern two thirds of the island. On it have been deposited alluvial material washed down from the mountains by the streams, along the shores are sand dues and other aeolian deposits, and in the extreme north, on the Jaffna peninsula, are some limestone deposits.

The second erosional level is a rolling surface with considerable local relief. The summit levels are roughly coordinate, tho one accustomed to viewing the peneplains of Pennsylvania is not immediately impressed with the character of this erosion surface in Ceylon. In the south the escarpment rises abruptly from the coastal plain, tho in the north the rise is not so sharp. On this second surface which lies at roughly 2000 feet above sea level, there are some isolated monadnocks and some low ridges which follow the strike of the rock structure.

The third surface at an elevation of 6000 feet is naturally of smaller extent and has greater local relief than do the other surfaces. Rising above it are some of the high peaks of Ceylon, famous Adam's Peak and Pidurutalagala, the highest point in Ceylon, 8292 feet. There are two areas of relatively flat land, one near Nuwara Eliya and the other around Banderawella.

Tho some of the streams of Ceylon flow along the strikes of the rock structure or along fault planes, most of them are short and give the island a radial drainage pattern. Where the streams descend from one erosional surface to the next their picturesque falls and rapids add to the beauty of the land. The island is without natural inland lakes, tho some artificial ponds and irrigation tanks have been constructed. Along the coast are some lagoons where streams are blocked by off shore bars. Around the island is a fairly wide continental shelf. The straits between Ceylon and India are very shallow.

The relief of Ceylon has played a large role in its economy. One of the important criteria in the division of the island into political units and geographic regions has been the landforms. The complex gneissic rocks, and alluvial material derived from them, are endowed with some minerals, notably graphite, gem stones and rare earths. In a tropical area such as Ceylon, differences in elevation cause sharp contrasts in natural vegetation and in choice of crops. The minute diversity of relief guides the shape and location of the paddy fields.

THE CLIMATE OF CEYLON

Situated as it is close to the equator, extending from 5°56′ to 9°48′ North Latitude, Ceylon has a tropical climate, modified only by relief.[6] The temperatures are uniformly hot in the lowland areas. Colombo on the southeast coast averages 80° to 81° F; towns on the northern plain, near the large land mass of India, average 81° to 83°. These towns also have a slightly greater seasonal range of temperature, 8°F, while Colombo, whose temperature is modified by the more open maritime position, has a range of only 3° from month to month. Actually the daily range of temperature is greater than the seasonal range. On a cloudless winter day in Colombo the diurnal range may be 15°; on a humid summer day the range may be 8° or 9°, but this difference between day and night is still more than the difference between 'summer' and 'winter.'

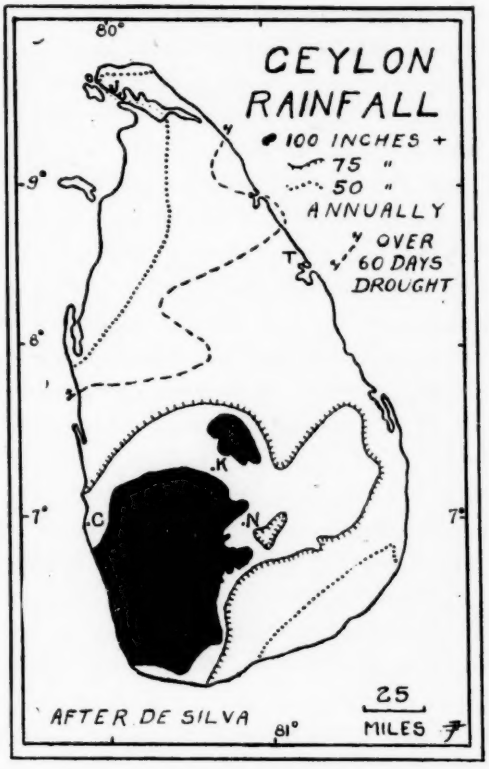

Fig. 2. The Rainfall of Ceylon. This sketch map, adapted from two maps in S. F. de Silva's *The New Geography of Ceylon* (Colombo, 1943), reveals the contrast between the wet zone of the southwestern part of the island and the dry zone of the north.

The most striking contrasts in temperature from place to place in Ceylon are due to increased elevations. As one climbs into the hill country the temperatures drop in almost exact ratio to the rise in altitude. The seasonal and daily rhythm in these upland areas is very similar to that in the lowlands. It is the same tune but played in a lower key. For example, at Nuwara Eliya, above 6000 feet, the

[6] The Government meteorological observatories in Ceylon have collected a mass of data which is available in their publications. Articles covering special phases or individual storms have appeared in the *Ceylon Journal of Science*. The geography books previously cited give good general treatments.

temperature averages 57.4° in January and 61.8° in May; the town is therefore an obvious choice for a rest spot where people can get away from the heat of the plains. The cooler weather at these higher elevations naturally causes differences in land use. The isotherms, closely following contour lines, are boundary lines between geographic regions and crops in the island.

There are three major rain-developing agencies in the climate of Ceylon: monsoon drifts, convectional storms, and tropical cyclones. The effectiveness of each of these is modified by relief and they often act in concert with one another. Being close to the subcontinent of India the island experiences the seasonal drifting of the monsoon air masses. During the summer months the air moves from the southwest across the island toward the monsoon center in India. In winter the air masses drift out from India and come across Ceylon from the north and northeast. Where these winter or summer air masses are forced to rise over other, often stagnant, air masses or over mountain barriers precipitation is likely to result. Conversely where the air masses traverse low-lying country, go along, rather than across, mountain barriers, or descend on the leeward side of the barriers, the rainfall will be low. Since Ceylon is in tropical latitudes, the vertical sun's rays cause convectional updrafts of air. When the air is heavily loaded with water vapor precipitation results. Diversity of relief and consequent surface exposures at different angles creates great turbulence of the air. Thus more convectional storms are experienced in the hill country than on the level plain. Along the coast diurnal land and sea breezes develop due to the differing effect of convection. These on- and offshore breezes occurring during the day and reversing themselves at night affect local rainfall slightly and more especially local sensible temperatures. Tropical cyclones, formed in the Bay of Bengal, are another rain causant. They are most common during the change of the monsoon pressure centers, especially during October and November. Often of hurricane intensity, the storms bring heavy rainfall to the lowland as well as to the mountain areas that may lie along their indiscriminate paths.

Bearing in mind these rain-causation agencies the varying areal and seasonal distribution of rainfall on the island can be understood. As the map shows, the heaviest rainfall, over 75 inches a year, is received in the mountain and coastal regions, which face the southwest. Most of this rain comes during the summer months; however, the winter months are only less wet rather than dry. In

contrast the plains in the north and extreme southeast have, for tropical temperatures, low annual rainfall, less than 50 inches. The precipitation is not only low in quantity but is unreliable. Moreover in the drier zone most of the rain comes only in one season, the northeast monsoon season. The dry season from February to September is quite distinct. The north suffers on the average thru

Fig. 3. On the coconut-bordered shore line of Ceylon. This picture, taken a few miles south of Colombo, shows a picturesque beach which is a popular bathing place. (Courtesy of Samuel Schneider)

60 days of drought. The people must either fit their agriculture to this rhythm or overcome it by building tanks to irrigate their lands during the dry season. Thus differences in rainfall cause differences in man's activities in Ceylon. The wet zone farmer can grow two crops of rice in a year, but a farmer in the dry zone grows but one.

THE FORESTS AND SOILS OF CEYLON

The basic interrelated factors of relief and climate affect Ceylon's other characteristics, the vegetation and soils.[7] Forests cover

[7] The Royal Botanic Gardens at Peradiniya near Kandy, which later became a part

three-fourths of the island, but these differ with relief, temperature and rainfall. The tall, broad-leafed trees of numerous species, having a dense undergrowth and supporting a heavy load of parasitic vines and creepers, are typical of the wet zone. In the highland areas more temperate species of trees are common. In places where the high lands were cleared for coffee plantations and then abandoned, reforestation has been necessary. Some of the high wind-swept plains with hard-pan soils and located in the rain-shadow of the mountains are covered only with coarse grasses and scattered trees. On the plains that have a very marked dry season and very low rainfall, thorn forests are found. These grade into the more widespread dry zone forests which have a great variety of trees, characterized by small leaves and thick bark. Along the water courses such trees are a dense growth, but over most of the dry zone the trees are widely spaced with broad, interlaced crowns. Under this canopy a choking undergrowth of shrubs and small trees fights for sunlight and existence. The forests of Ceylon are important to the people for firewood, but only a few trees among the great diversity of species, and these not in solid stands, yield merchantable timber. The forests, tho often a help, are more often a hindrance to the people, for as the pressure on the land increases the trees must be cleared by fire and cutting to provide agricultural land. This is not an easy task for the farmers and once having accomplished it, they must be alert to cut back the tropical growth before it invades their crops.

The soils of Ceylon also reflect the climate and landform of the island. The crystalline rocks, under the influence of the tropical climate, are subjected to intense chemical decomposition. Outstanding among the residual soils thus formed are the lateritic soils. Some of these soils, tho poor, can be artificially fertilized with good results. In southwestern Ceylon, a well-developed lateritic type of soil, locally known as 'kabouk,' is used for house construction and other purposes. The erosional history of the island has resulted in wide-spread deposits of alluvial material. Some deposition is presently taking place on the flood plains of the streams. The soils formed from the recently-deposited alluvium are fertile and on

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of the Department of Agriculture, has carried on basic research and experimentation on the flora and soils of the island. Their technical publication, *Spolia Zeylonica,* which later became a part of the *Ceylon Journal of Science,* another journal, *Tropical Agriculture,* and numerous monographs and reports they have published contain a wealth of material on these aspects of Ceylon.

them paddy fields can be developed. Thus a map of rice cultivation of the island would closely coincide with the distribution of alluvial soils. Along the coasts are sandy soils which are deep and well-drained, thus suited to coconut palms or, where intensively fertilized, to tobacco and other crops.

The different physical attributes of the land of Ceylon play a dominant role in the life of the people. A subsequent article will deal with man's activities on the island. There is one aspect of the land, however, which cannot be presented adequately by words or maps, its beauty. This beauty of Ceylon in part is due to the diversity of landscapes. Mountains and plains clothed with tropical foliage make it a land, in the words of the hymn writer, where "every prospect pleases."

WORLD EVENTS AND THEIR IMPLICATIONS IN THE GEOGRAPHY CURRICULUM*

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The growing complexity of human problems the world over makes the geography curriculum of increasingly critical importance at all levels from grade school thru the University. The "oneness" of earth is not new to geographers, but to the public it is a concept seemingly just dawning. Geographers have the opportunity to capitalize upon this new appreciation of the world's complexity by focusing emphasis upon the significance of the rôle of their science as a fundamental aid to the proper interpretation of international relations and to international understanding. The current situations may call for some changes in points of view in our teaching, depending largely upon what the individual teacher is now doing. But none of the changes need be so radical as to give geography an entirely new complexion. We need only to develop our own awareness of the relation of current affairs to geographic conditions and to convey the point of view to the student.

These introductory remarks may seem to imply that I subscribe to the all too widespread concept that geography is a social science. Lest this be your impression I hasten to correct it. It is not my

* Presented at the Columbus meeting of the National Council of Geography Teachers, December, 1946.

purpose to launch into an extended consideration of the definition of geography, but it does seem to me essential to declare my own point of view with reference to the social science aspects of the field in order that what follows may be properly interpreted.

GEOGRAPHY AS A SOCIAL SCIENCE

About twenty-five years ago when the so-called social studies began to make a favorable impression upon our school authorities, there was a grand rush by some geographers to classify geography as a social science. They feared geography would be thrown out of the curriculum if not so defended. Whether or not these ardent persons were engaged in mere political strategy or were firm believers in what they argued is not certain and may not be important now. The fact remains that in the course of the years since passed, great numbers of geographers have become converts to the idea, and this, I think, has been most unfortunate. That movement to "save" geography as it were, sincere as it may have been was a great mistake notably retarding appropriate recognition of the value of the science by the general public and by our colleagues in the realm of the physical sciences. A world war was necessary to regenerate geography, an expensive procedure, and no one can be certain how long the effects of this stimulus may last.

I do not hold geography to be a social science. It is an earth science of tremendous significance to a correct interpretation of life's activities—plant and lower animal as well as human. We do not style an entomologist, a social scientist when he delves into the mysteries of the social organization of ants, nor do we classify as a social scientist, the zoologist who concentrates upon genetics. Need a geographer who inquires into the relationship between the animal man and the physical earth be thrown into the same category with the economist or sociologist, that is, into the realm of the social scientist? As a matter of fact, the expression social science is a paradox, for the society of man has yet to be shown as a phenomenon whose behavior can be predicted with finality.

I go along with those who believe that a study of geography will contribute much to our understanding of man's behavior. I would go so far as to insist that without taking into consideration man's geographic setting there can be no satisfactory understanding of man. Surely the science of geography has much to contribute to the social studies, but this fact does not make it a social science. If we will only insure that the subject discussed at a given moment

is rooted in the physical earth we shall provide ourselves with an adequate guard against the assignment of non-geographical elements to the category of geographical facts, avoid the not uncommon accusation that "geographers are the fellows who talk about everything," and gain the wholesome regard of workers in other fields. To be sure the play of non-geographical phenomena needs to be recognized by geographers, if we would avoid errors in judgment. The important point is that students be made fully cognizant of the differences between geographical and non-geographical elements and aware of which of those aspects is under consideration at a given time. There are moments when recognition of the non-geographical aspects of a situation by geographers is of critical importance to the accuracy of his geographical interpretations.

APPLIED SUBJECTS IN THE CURRICULUM

We have often heard or read the word "correlation" in association with either the structure of our science or its function. Correlation is not only highly desirable in our teaching but indispensable to an adequate job. If we can tie-in with class assignments, the course of current events, we shall provide an atmosphere of realism in the class room which should arouse student interest and enthusiasm for the subject. But the tie-in must be more than merely routine. It calls for the application of principles, for the areal or space relation concept, and for the analysis and synthesis of both in relation to man's activities.

Students should be made aware of the applied or practical value of geography. Now, I know there are persons in academic realms who seem to believe that reference to the practical, somehow is undignified, perhaps even immoral. Such a viewpoint is unfortunate. There is no shame in acquiring useful knowledge. In fact, until geographers demonstrate to all the world the practical value of their science they cannot hope to receive that financial support so abundantly available to research workers in medicine, chemistry, physics, biology, and even geology. As man's struggle for existence becomes more complicated and his competition more keen, the objectives of our investigations of fundamentals must increasingly focus upon the practical. If we would advance geography we must show our youth that here is a science that has its applied, as well as theoretical side. The present world confusion affords us one of the best opportunities for such a demonstration.

Recently there has been widespread criticism in many quarters

of the lack of adequate understanding of the peoples of the world by public school and college graduates. The press has surveyed the schools to find evidence in support of their contention that required courses in history, properly presented would remove this deficiency. It is evident that these investigators completely overlooked the rôle which geography serves, or may serve. I wonder why?

No doubt the fault lies with us. We have not adequately brought to public attention the scope of modern geography nor its practical value. Too much of the public still conceives geography to be a study of locations and the drawing of maps. Too many people interpret economic geography as economics; agricultural geography as agriculture; historical geography as history and still other aspects of geography as subdivisions of the realm of the associated field rather than subdivisions of the science of geography. We have failed to arouse enthusiasm in the student body for that basis for understanding which our science can give to both national and international problems.

Perhaps this popular misconception is to be traced to the public schools. We well know of course, the importance of age in the fixing of ideas. If we never fully appreciated this correlation prior to Lenin, Hitler and Stalin we certainly should possess a thoro awareness of it today. Much of the popular impression of the scope of the respective arts and sciences, held by the present-day older generation reflects what this group learned in its youth. Happily, popular articles in magazines and newspapers, a few books and radio programs have enabled some of these persons to augment their geographic knowledge not always profoundly but nevertheless advantageously. But the impressions gained in youth, on the whole, seem to have been little modified. The responsibility, it would appear, must lie at the doorstep of the geographers themselves.

Complexity of the Science

We have been inclined to teach geography as tho our students were going to become specialists in the subject. Physical geography failed to gain much popularity because too often we failed to correlate its various aspects with daily life. The student memorized a certain amount of abstract material unaware of its relation to his own immediate environment or to more remote areas. I sometimes think the humanistic aspects of geography may be too complex and too difficult for our students to comprehend. They need a back-

ground of economics, of physics, of chemistry, plus a maturity which provides a sum-total of experiences that time alone can bring. Perhaps geography should be taught to students either much older than those now exposed to it, who have a greater knowledge of other fields just noted, or in lieu of such conditions should be greatly simplified with respect to subject matter. We need more laboratory and field work, both of course difficult to achieve in most of our schools, but none the less critical.

I wonder if we do not attempt to cover too much ground in our various courses. Would it not be better to teach a few aspects of our field thoroly than to cover much superficially? Would it not be better to concentrate upon principles so far as we have them and apply them to a few current problems than to attempt to surfeit students with an enormous body of unrelated data? And if we would demonstrate that we have a practical science shouldn't we reveal to the students its value as the basis for forecasting certain economic or political consequences which derive from given geographic conditions? The role of geographic elements in the making of the peace, in the expansion of the U.S.S.R., in the decline of the British Empire, in the instability of China, in the agricultural future of the Netherlands Indies, in the reorientation of the agricultural economy of various regions of the United States, in the realignment of trade channels. I regret there is not time to elaborate upon some of these topics.

If many of our political leaders and federal government employees had had a greater knowledge of the geographic aspects of the continent of Europe they would not have failed so miserably in their interpretations of the behavior of European peoples and European nations both in pre-war and post-war days. Many of the younger element employed by UNRRA and other international agencies would not have misinterpreted so many of the human reactions they have observed as reflections of the war and its aftermath. Investigation of the academic training of these persons too often reveals a lack of adequate geographic training, if they have had any at all, since leaving the grade schools.

A Medium for International Interpretations

Today is the day of golden opportunity for us. People as never before are awake to the increasing interdependence of the respective parts of the earth. They are at last viewing the earth as geographers have done long since. The opportunity is here, so to orient

our teaching of the subject with special reference to current affairs, that both the public and the administrative staffs of our educational institutions will view geography as an indispensable course in the school curriculum ranging from the early grades thru the entire educational system into the Graduate School. We need to capitalize upon the present day public awareness of the shrinkage of the earth in both time and space, and to adjust the content and point of view of our courses, as never before, so as to reveal clearly and pointedly the requirement of geographic training for an adequate and objective interpretation and understanding of the earth, of which man himself is an integral part. We can achieve this end by appropriate use in the class room of the fundamentals of our earth science in the explanation of many current world events.

AN EXPERIMENT IN CONSERVATION EDUCATION

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World War II emphasized the need for conservation. The heavy inroads into such natural resources as forests, minerals, and soils alarmed even the uninitiated.

The State Superintendent of Public Instruction of Illinois, Vernon L. Nickell, has long had a keen interest in conservation and in its inclusion as a component part of the school curriculum thru the grades and high schools of the state. He feels that the key to the situation is in giving special in-service training to teachers in the field of conservation. Accordingly, in the winter of 1945-46 he wrote various educators of the state suggesting that one-week courses in conservation for teachers be given at various centers in Illinois during the summer of 1946. He asked the various educational institutions to furnish instructors for such courses.

PURPOSE OF THE EXPERIMENT

The keynote of the experiment was cooperation. The county superintendents of schools in the several counties would organize the courses and secure the registration of teachers. The State Superintendent would use the influence of his office to promote and encourage participation. The educational institutions would supply

instruction and educational leadership. Local conservation and Farm Bureau personnel would assist with the field work.

To initiate the program, a meeting was called at Springfield in the Office of the Superintendent of Public Instruction in March, 1946. Mr. Robert M. Ring, Assistant Superintendent of Public Instruction, represented the State Superintendent at that meeting. Representatives from several of the Teachers Colleges, the State Department of Agriculture, the State Department of Conservation, the State Soil Conservation Extension Service, the U. S. District Soil Conservation Office at Milwaukee, and the Illinois State Museum were in attendance. Others had been invited to attend, but for various reasons were unable to be present.

Certain quotations from the proceedings of the committee will set forth the objectives and purposes of the project as outlined by the committee.

"The purpose of the committee is to make plans and recommendations for a week of in-service training for teachers in the area of conservation during the summer of 1946. The program is sponsored by Superintendent of Public Instruction, Vernon L. Nickell. Superintendent Nickell is interested in a teacher-education program in the field of conservation thru a process of coordination of various agencies and organizations which are now at work in this field. Committee members who were present also felt that this in-service training would go far toward helping the classroom teacher in implementing the curriculum and course of study guide in science which has recently been issued from Superintendent Nickell's office.

"Any teacher or student of college level may be eligible for class registration.

"The organization of the class is to be designated by the institution offering the course.

"The class should be offered at a centrally located high school or college in each area or county.

"It should be the duty of the county superintendent to arouse interest and organize registration of the class in his county. He should arrange and provide a meeting place, teaching facilities, and other aids for the presentation of the class. He should consult with the instructor of the class, the farm advisor, the soil conservation director and others whom he may choose."

It was emphasized that as many phases of conservation as possible should be touched upon in the course. Recommendation was made that attention be given to the following phases of conserva-

tion: (1) Soil, (2) Water, (3) Wild Life, (4) Forests, (5) Minerals, (6) Indian relics and antiquities.

It was further recommended by the committee that as many experts and interested persons as possible in the various centers, where the course was to be held, should be asked to assist in whatever way possible with the giving of the course. Extensive pictorial material and field work should constitute large portions of the course. The proposed conservation course was held in thirteen centers during the summer of 1946. Sixteen counties participated, two or more joining at some centers. While not an auspicious beginning, it was probably as good as could be expected. One hour of college credit was given the student for successful completion of the course.

ORGANIZATION AND PROCEDURES

The Illinois State Normal University gave the course at three centers during the last three weeks of June. The first course was held on the Illinois State Normal University campus from June 10-14, the second course at Lincoln in Logan County on June 17-21, and the third course at Decatur in Macon County on June 24-28.

The organization and presentation of the materials for the courses directed from the Illinois State Normal University may be taken as somewhat typical of those of the various centers. However, it should be understood that the directors of the courses had no conferences and the only common ground of work was that discussed in the committee meeting in Springfield in March.

The importance of field work in such a course was felt to be of first importance. Also, conservation in an agricultural community, such as central Illinois, must emphasize primarily soil conservation, with less attention to water, farm woodlands, and wild life. Because of the lack of opportunity for field work, the conservation of minerals was discussed only incidentally in the introduction and as it related to the several other fields of conservation.

The work was organized along the following pattern. In the forenoon, class discussions based upon textbook, government bulletins, and various types of pamphlet material lasted from two to three hours. The time from 11:00 to 11:45 was devoted to pictures. Various types of still pictures and some film strips were used. At least one moving picture was run each day. The following moving pictures selected in conference with the United States District Soil Conservation Office at Milwaukee were found to be exceptionally valuable:

1. This Is Our Land
2. Realm of the Wild

3. A Heritage We Guard
4. There Is More Than Timber in Trees
5. In Common Cause

In some cases conservationists and others interested in various phases of conservation talked at the morning sessions. However, in general the discussions were directed by the instructor.

FIELD WORK

In the afternoon the group met at 1:00 for field work, and the entire afternoon was spent in the field. The field courses were largely under the direction of county, city, or district conservationists, or the officers of the local Farm Bureaus. The Forestry Extension Department of Urbana supplied a forester for each of the classes on the day indicated. The work was apportioned as follows:

Monday and Tuesday, Soil Conservation
Wednesday, Conservation of Farm Woodlands
Thursday, Water Conservation
Friday, Wild Life Conservation

The work in the field included visits to a variety of conservation areas, problems, and practices. The students were shown the most badly eroded soils known in that particular county. The next day they were taken to see soil conservation practices that would help to remedy the serious erosion seen on the preceding day. Visits were made to farm woodlands and emphasis was given to the problems of pasturing of farm woodlands, of rehabilitation, and of placing them on a sustained yield basis.

The field work on water conservation included attention to the underground reservoir of water and its importance to rivers and lakes for industrial, municipal, domestic and transportation uses. The municipal water plants and sewage disposal plants were also visited in relation to the problem of water conservation. Attention was called in the field to various reservoirs, farm ponds, and such lakes as Bloomington, Decatur, and Springfield, built primarily for municipal water supplies.

The field trips relating to wild life conservation emphasized the importance of cover for wild life and the connection between farm woodlands, farm terraces, buffer strips, and wild life. Attention was also given to fish and wild fowl conservation. Visits were made to the rearing grounds for upland game and fur bearers.

It is impossible in field work to visit only one type of conservation work and practices. Accordingly, all types of conservation were

studied in the vicinity where the field trip was directed. This had the advantage of emphasizing that no one phase of conservation can be studied by itself. All phases are inter-connected and inter-related, and it is unwise as well as impossible to try to separate them.

During the course quizzes were given upon the various types of materials studied. No formal final examination was given.

AN EVALUATION

The following evaluation will serve to emphasize the strong points of the experiment:

1. The focusing of all the energies of instructor and students upon conservation gave the program high interest, such as is not found in the ordinary classroom.
2. The field work gave a concreteness and utilitarian viewpoint to the course.
3. The picture material added interest, variety, and gave clarity to the ideas being taught.
4. The direction of the field work by conservation experts gave a scientific atmosphere to the course and showed to the teachers the interest of the community in conservation. It also showed them sources and personnel available in the field of conservation.
5. The cooperation of the conservation experts of the various localities with teachers made these officers more keenly aware of their opportunity in enlisting the service of the schools in promoting conservation.
6. The cooperation of the State Department, county superintendents, instructors, and conservation officials gave a completeness of effort, which if handled properly will have an almost irresistible impact in the teaching of conservation.
7. The instructor was surprised at the keen interest of the students, at the ease at which cooperation from conservationists was secured, at the cheapness and effectiveness of pictorial material, and with the pleasurable satisfaction in seeing the effectiveness of the course. In a third of a century of teaching, the instructor felt that his teaching had never been so effective. Altho the time for each course was short, there was a general feeling that a good beginning had been made; and that the results would be permanent and lasting.

Plans have been made to repeat the courses during the summer of 1947, probably at different centers. Indications are that the work will be on an increased scale.

WHAT SHALL THE GEOGRAPHY TEACHER TEACH IN THE ELEMENTARY SCHOOL?

TEACH IDEAS AND TEACH CIVILIZATION*

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The geography book contains a great mass of facts culled by the author from a much greater mass of facts. Does any teacher expect a pupil to learn all the facts in the textbook? Do your worst, but it is not likely that all the facts will be remembered, even for a day. Since few will remember geographic facts very long, why then burden the child at all? Why make a book loaded with facts?

Before answering that question, let me ask you one. What do you expect your pupils to get from classes in geography? Some things about the world of course—about its countries and peoples. But what residue should we expect these boys and girls from nine to twelve or thirteen years to have thirty years hence, when, in the prime of their powers some of them may be helping to govern the United States and their generation will be dominant?

There are two enduring things that you may hope to plant in the minds or spirits of children. The most important of these things that endure is *attitude.* Attitudes help to decide how we interpret the facts of life. Attitudes are perhaps our most important residue.

The second important residue of the geography class may be a few big ideas about countries, peoples and places.

THE FACTS AND THE IDEA

Altho we know that the facts of geography will not remain in the mind for many decades, we believe that the essence of the facts, the big ideas, may remain as an important activating influence thruout life.

Let me tell a story about one of the few lessons in English composition that I remember. In the period 1908 to 1916, I was contributing to most of the leading magazines. It seemed that I might be starting on a career as a magazine writer. However, geography books have seriously delayed that magazine career.

In this early period a manuscript went to *Everybody's Magazine,* a journal now defunct, but then a fighting magazine of na-

* Presented at the Columbus meeting of the National Council of Geography Teachers, December, 1946.

tional influence. At that time Lincoln Steffans was probably the leading writer for magazines of the United States. When my manuscript went to *Everybody's Magazine* the editor wrote to tell me that an editorial conference was held every Tuesday morning in their office. Mr. Steffans and others would come in and they talked things over. They would be glad to have me join them next Tuesday at ten o'clock.

I received this letter one July day in Virginia. It was an expensive trip for a young professor on a small salary with thre small children, but I went and I got my money's worth—one idea. That idea is applicable in many situations including almost any geography class. I will pass on the idea to you without charging the $25.00 carfare that I paid to get it.

Said Steffans, as he held up my manuscript, "You have an idea—it can be reduced to a simple sentence, but if you state your idea in one sentence, your reader won't get it. You must tell your reader facts that will prepare his mind to receive your idea. This may require several pages. You go along page after page, and finally, the mind of the reader is opened up. Then you can just drop that sentence in and he can never get it out." As Steffans said this, he made a gesture with his two hands as if dropping something into a vessel in front of him.

Supposing when directing a class in geography the day's lesson is something about a foreign country. What do you want your pupils to remember about that country thirty years from now. Perhaps it will sift down to two, or three, or possibly four big ideas, which may be expressed in as many sentences. In preparing the lesson, you weigh the facts about the country you will present. You pick out the big ideas, then you will use the facts of the book to prepare a background, and build up a framework. Finally the big idea comes out of this mass of facts—and drops into the mind of the pupil. The facts may fade from memory, but the big idea may stay for life.

The Arrival of An Idea

I think you will recognize that the process described is a normal mental process and I am sure that each of you can recall instances where, after having mulled over a lot of unsignificant facts, the facts suddenly became significant because as quick as thought itself, they crystalized and gave you a big idea—the essence of the facts.

I think that is the way that nearly all of us get general ideas, unless we receive them ready made from some other person.

The work of Ellsworth Huntington furnishes a fine example. Many of you know his book, *The Pulse of Asia.* After many months and many thousands of miles with his camels, crossing deserts and mountains, visiting oases and examining ruined oasis settlements, he wrote a book presenting the following thesis, that central Asia had had long periods of humidity, good rain, good grass, during which flocks increased. There was then a great prosperity and tribal increase among the pastoral nomads who roam the vast area of inner Asia from Anatolia to Manchuria. Then came periods of draught, reduced grass, reduced flocks—hunger, famine, flight, migration and invasion of surrounding countries.

One day I asked Huntington if he could recall when and where and how that idea of the pulsations of Asiatic life came to him. "How did you get the idea that later became your book?" He thought a moment, "Well," said he, "about ten o'clock one sunny morning, as I was riding on a camel across such and such a desert, the idea came to me as suddenly as a pistol shot." The mass of facts in Huntington's notebooks had come alive and began to take their places. The book was all done but the writing.

We are not all going to have flashes that interpret the history of a continent, but the process is one that works in all our minds. In preparing a lesson for a geography class we need to scan the available material until it gives out a series of minor flashes, which are the big ideas that are needed for the proper understanding of that country.

AN EXAMPLE OF THE USE OF IDEAS

Consider Canada. One of the first statements you are likely to meet is that Canada is larger than the United States. True, but what boots it? That bit of fact needs much weighing before it has value. Fortunately, Canada is usually taught immediately after the United States, and it should be so, because of the complete necessity of using the type method in teaching geography.

The boundary between the United States and Canada cuts North America in two. The two countries are separated most of the way from the Pacific to the Atlantic by an imaginary line and the remainder by bodies of water. From your study of the United States, you are acquainted with the types of country that lie south of the boundary. Every region of the United States is continued in Canada—the fishing coast along the Atlantic, the small scattered rocky farms near the Atlantic. Uninhabited forests in Maine extend

into Quebec. Populous farms, with a sprinkling of manufacturing towns in the Lower Lake region of the United States are duplicated in southern Ontario and the Upper St. Lawrence Valley of Canada. The rocky, glaciated, and lake strewn uplands of our Upper Lake region cross the boundary and continue thru Canada to the Arctic without a break. The rich, tillable, and almost level prairies of Minnesota, the Dakotas and Montana pass into Canada without a break.

North of all these lies the Great Northern Forest, west of them all are the Rockies. Upon analysis the great size of Canada becomes unsignificant. The appraisal of Canada sifts down to there being two relatively small parts of Canada that are geographic, industrial and cultural extensions of the adjacent areas in the United States—the western prairies, the Lake region, and a third extension of lesser importance—the Atlantic Coast region. These are the important facts about Canada—the big ideas. Of course you will teach some minor facts too, you will show that nearly all the remainder of Canada is non-agricultural land with less than one person to five square miles except for a few mining settlements. You will so organize your presentations that finally you are teaching big ideas. And Canada will appear before your class in the true relations to the life of its people.

Attitudes: The Vital Attitudes

Now what about attitudes—the other important residue that may come from the geography class. In this connection a specific problem may help to clarify meaning. We all know of the One World Idea. Am I not safe in saying that we are all in favor of it and all wish to help it along? But how can we do that?

We begin with a base fact—world commerce. This gives physical interdependence to widely separated peoples. We, of the United States, get vital raw materials and some foods from many lands. In return the inhabitants of these lands get from us cotton, tobacco, automobiles, machinery, telephones, and many gadgets. This one world of trade is a physical, economic fact. But it should not be an end in itself for the civilized geographer. In itself, world trade is but a basis on which to begin civilization.

What are the attitudes of the human spirit between these trading groups that make up our one world of trade? That is a vital factor that decides whether we have peace or war. Hitler came dangerously near creating one world. It would have been a world of slaves,

all obeying the will of conquering tyrants. The One World of which we dream and for which all should work and pray cannot be based on the will of a conqueror, but must rest on a philosophy of live and let live, on a basis of mutual respect between peoples.

I am aware that I make this statement at a sad time in the history of the world, a day in which mankind has harvested a huge crop of hates. What should be done? Shall we cultivate these seeds of hate and grow more hates? That is the road to World War III, the war that has the possibility of wiping out twenty large American cities in the first day.

The one world of peace can only be organized among peoples who have some attitudes of respect for one another, some willingness to live and let live. The creation of the one world that all *peoples* want is first of all a matter of *attitudes* and *understanding,* and a willingness to make mutual sacrifices. What can we do about that? For ourselves and for our pupils, can we not try to extend to the other peoples of the world the same attitudes that are widely held by the readers of this paper toward the people of their own communities—that is, an attitude of live and let live? Do we not, in our own communities, work together and cooperate in all possible ways with a great variety of people, while restraining a small criminal element?

We are naturally acquainted with our communities. In the geography class we make an effort to become acquainted with the other peoples of the world. This is one thing we need constantly to remind ourselves and our pupils. Despite the barbarities of the conquering Germans and the conquering Japanese, Americans who have lived with German and Japanese people on terms of equality, very often come to like the individuals and regard them as friends. A people become dangerous when, like Hitler and military agressors everywhere, they get the idea that they can rule other people. The lust for power is the most dangerous of all human passions. It knows no limits. It knows not satiety. It grows with gratification. To remove the possibility of conquest from the minds of men will be the first great task of an effective organization for world government. Its achievement will be a great spiritual reform. The Scandinavians are an inspiring object lesson of the changed attitude that can come to a people. A thousand years ago the Scandinavians (North men) were bloody thirsty pirates. For many centuries the English Book of Common Prayer said, "From the Fury of the Northmen Good Lord deliver us." But for the last two centuries the

Scandinavians have been too small to *think* of conquering other peoples. They have tamed themselves, until now we journey to their lands to learn from them better ways of living. If world organization can remove from all minds the concept of possible conquest, similar changes may be expected to occur in the British and the Germans, the Russians and the Americans, the Chinese, and the Japanese.

To us, the teachers of geography, to us more than to others, is given the opportunity to spread the attitudes in American schools that will make One World possible.

A Class Hour on National Pride

I wonder if there could be a more profitable class hour than one in which the teacher helped the students work out reasons for national pride in different nations. Take our own nation. You often hear people boasting about our natural resources and how we have turned our resources into machinery and power. And are we not, they ask, the richest people in the world, and the most powerful nation on earth? It would be a profitable classroom hour to point out that we had the great luck to find the resources here when we came to America. We did not make the natural resources, we found them, and are now wasting resources and destroying them at a speed never before equalled in all human history.

If we feel that we are a superior people because of our natural resources and the things we make from them, does that make Jack Horner a national hero? You remember that little Jackie sat in a corner, eating his Christmas pie, he put in his thumb and pulled out a plum and said, "What a good boy am I." Do you observe that the possession of a plum makes Jack a *good* boy. Thereby lies a great deal too much Americomania—Chamber of Commerce virtue —riches and physical conveniences.

Now consider plumbing! It is a great convenience, perhaps one of the triumphs of the ages, but I think we will agree that modern plumbing is not a necessary measure of the goodness of civilization. Hitler had the best of plumbing. But Abraham Lincoln was severely criticized in the public press of this country in 1861 because he had a bathtub put into the White House in Washington. George Washington had no plumbing, nor did Thomas Jefferson, nor Benjamin Franklin, nor any other of those revered heroes. There was no plumbing in America or any other land, but there were plenty of big ideas and great expenditure of time and effort for the public

welfare. Gadgets are useful, but they do not make civilization, or measure its quality. *Civilization is largely a matter of the mind and of the spirit.* As an example of process, I call attention to the fact that I used three paragraphs in the attempt to get that italicized sentence across.

AN EXAMPLE OF THE TEACHING PROCESS

We teachers have a great opportunity to show that the peoples of other countries are no less human beings because their kinds of possessions differ from those that we happen to possess at the moment. I repeat—plumbing is awfully convenient, but it isn't the measure of culture.

What raises man above the savage? It is knowledge—inventions —engineering? Chemistry? Remember, the greater our knowledge of science, the greater is our power for *evil* as well as good.

If science, technology, economics and organization are all that is needed, it should be noted Nazi Germany had them all to a high degree. Human beings were never killed more scientifically than in the German poison chambers. No, it is not the fact that a nation, or a people, possesses particular things; the use that people make of the things they have is what matters most.

A mere technician knows everything about his job except its purpose; the purpose may be the most vital part.

Soil and topography, wind and calm, sun and rain, help man to produce food, clothes and shelter. These physical necessities may be regarded as nurse and mother. They start us. They are the *basis* upon which man achieves. But our attitudes, the attitude of all the people, will powerfully affect the use man makes of his material possessions. The class in geography is an ideal opportunity for building attitudes for right living and brotherhood. We must somehow hold up before the pupils the image or the idea of human greatness. Young people are idealistic and psychologists tell us that many life ideals are formed in the early years. You remember that Andrew Carnegie strewed our country with libraries, far and wide. This sprang, so he said, from a youthful resolve that arose from a stroke of luck that came to him as a telegraph messenger boy. You know the story. The boy, Andy, in delivering a telegram, entered a door that gave access to the friendship and the books of Thomas Scott, president of the Pennsylvania Railroad. The boy fed his hungry mind and resolved that if possible he would see to it that other boys might also have access to books.

Louis Bromfield, the novelist, says that when he was six years old, he visited his grandfather's farm. "What makes that yellow spot in the cornfield, Grandpa, up there on that hillside?"

"Well, Louis," said Grandpa, "The rain water has run down there and washed nearly all of the rich topsoil away."

And then and there, young Louis, age six, thought that something ought to be done about it and now, said Louis, a successful literary man in his prime is devoting a large share of his time and energy to soil conservation.*

Knowledge, the teaching of a subject is not enough. The world needs goodness, beauty, greatness—great achievement. Can we somehow get the idea or vision of some of these things before our pupils in such ways that some of the young people will form resolves that go with them thru life? That is the greatest need of education everywhere and everyone of us has some opportunity.

* He is working thru the Friends of the Land, an organization you may want to join. It has collateral material of great value in its publications. Address, "Friends of the Land," Columbus, Ohio.

EXPLORING THE GEOGRAPHICAL ENVIRONMENT WITH TEN AND ELEVEN YEAR OLDS*

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Recently I heard a progressive educator makes this statement: "It is not unreasonable to expect that the schools of the future will be equipped with air transportation facilities which enable groups of children studying about life in the jungle to take the school's plane and fly to some tribal community in Africa where life among the natives may be observed at first hand." Such a kaleidoscope will come long after we retire from teaching, I am certain, but his plan would go far toward a solution of our ever present problem of bringing understanding to children's experiences. Perhaps in the future airplanes will help us to become as friendly with people in other countries as we are today with our neighbors next door.

However, since at present, extensive travel by air is impossible and impractical with our large groups of children, we must explore those areas of the geographic environment which may best serve to foster those objectives which we hold paramount to a better understanding of world neighbors.

I have not come to you this morning with any new or startling formula to gain immediate understanding and appreciation but rather to examine with you practices which may best serve to contribute to our children's interpretation of geographic understanding of the world and its people. Procedures which I discuss, may be the very ones you are now using in your own teaching situation. And is it not a source of satisfaction to know that our teaching efforts are in keeping with what teachers are attempting to do all over the country to make teaching effective? We can profit from shared experiences. We can be aware of those problems confronting us. We can try to work toward a better solution of them.

It is thru programs and units in social studies that many attitudes may be built with children of intermediate age level groups. Since my work and contact is with children ten and eleven years old, my discussion will center around activities in keeping with this age group's interests and abilities.

* Presented at the Boston meeting of the National Council for the Social Studies, November, 1946.

If we accept as a premise, and I do, that one of the greatest barriers in the path of international understanding is ignorance of the world, of the lands and their people, then we realize that a knowledge of geography is one of the best opportunities to help to contribute to the welfare of mankind. For by studying the relations existing between human beings everywhere and their natural environment, we gain a sympathetic understanding of how and why our foreign neighbors live as they do.

The teaching of such geographic knowledge cannot wait until the adult state of education. Where then can we best begin to stimulate interest and teach such knowledge upon which much of subsequent thinking and understanding of world friendship will be built? It would seem that at some level in the elementary school we now have a definite responsibility to promote better human relationships at home and abroad. Let us consider for a moment the readiness with which ten and eleven year olds work. They want to know things. They enjoy the mastery of intellectual skills in much the same manner as they enjoy the mastery of the physical skills. In building toward an appreciation and understanding of people the teacher finds this a time for learning facts about the peoples of the earth and the countries in which they live. Children constantly amaze us with their readiness to learn and their ability to acquire quantities of informational material. However, children need guidance in the selection of material, organizing it, and sound interpretation of it. They have not lived long enough to have developed these skills for themselves. They have not had enough experience. So the teacher must help them to select material most conducive to the development of their interests, in this instance, material selected for a better understanding of people of other lands.

There are many possible approaches in a study of the geographic environment in which children have opportunity and experiences to explore. After a summer's vacation ten and eleven year olds enter school in the fall eager and full of the experiences they have encountered thruout the summer months. A teacher interested in beginning a study of lands and people will find this an excellent opportunity to capitalize on the varied experiences her youngsters have had and discuss with them their trips to the city, country, mountains, beaches, seashore, lakes and hills. Some boys and girls may even have had the advantages of travel far beyond the immediate environment and will be able to describe scenery such as desert country which will add new interest and material to the

experiences within the group. Now that extensive travel is once more in vogue, the teacher herself may become a source of information and describe new places and recount glowing description of panorama of far away places. Every effort should be made to find within the community those people with varied cultural and national backgrounds or travel experiences who might enrich the experiences of the children. These people should be invited to visit the group for the purpose of sharing such information as would help to contribute to landscape apperceptions.

Word pictures, limited in phrasing as to what the children actually see and recall from their summer experiences, can be written and help to point up the concept that countries are made up of many things—mountains and rivers, lakes and forest, fields and orchards, grasslands and sandy deserts. Children may be guided to record what they have seen on such visits in simple written expressions. For example when a child writes:

I see big breakers
Many feet tall
Come down like a
Shower of rain

he is recalling an experience about the ocean which serves to give him a mental image which he is not likely to forget. Or when a child writes:

In the Allegheny Mountains
From a huge mass of rocks
Rising many hundreds of feet
From the middle of a beautiful valley
Is the Seneca Rock

the written recall has served to make an indelible impression on his mental imagery about rock formation. Many group trips should be taken into the local environs to observe at first hand the topography. Collections of any visual materials such as postcards, photographs, or magazine illustrations and original drawings to enhance the written word pictures clarify more concretely the experiences children have had, and give others, who have not shared the experiences, the opportunity to gain concepts and to become aware of how these places look thru the varied environmental factors.

After the group has shared these personal experiences, and taken many trips, formal charts such as the land forms on *Beginners Maps in Global Geography* published by the Rand McNally Company may be shown and discussed with the children.

Then landscape maps with natural photographic forms of capes, islands, bays, peaks, lakes, rivers etc. may be studied and then compared with physical maps which show elevations and depressions in colors, hachures, or contours. Such contrasts between the landscape map and the physical map tend to give ten and eleven year olds a basic understanding that map symbols represent some things and these things should immediately conjure up the mental image.

Altho children can not visit all of the countries in the world, they can readily learn to know maps and to read meaning into the relief, areas in color, or the symbols in contour, etc. about the topography of any country. At this point many types of maps could be used to show the many ways of depicting how the lands of countries all over the world look. For example, maps showing relief, or maps showing vegetation areas in color, hachures, or contours may be portrayed satisfactorily. Ten and eleven year old children will find great delight in modeling with papier mache or flour and salt mediums the land forms of the world, the land formations of individual countries they may be interested in, or the various land forms that they can see from a high building in their own city.

Climate is another important factor in the geographic environment which is definitely related to the lives of people. For in most places men, women, and children have found ways to live, to work, and to play, ways best suited to the kind of country they live in. Ten and eleven year olds living in New England have experienced the seasonal changes in temperature and daily variations of weather. They are directly conscious of it as it affects their play, the clothing they must wear, and even their health. When the United States Weather Bureau reports the weather, many people do something about it contrary to the remark often credited to Mark Twain that: "Everybody talks about the weather but nobody does anything about it." Ships at sea prepare for a storm, cattlemen round up a herd of stock in anticipation of snow and high winds; fruit growers prepare to protect valuable crops against a coming frost; airlines postpone or cancel flights; forest rangers change their plans in fighting a forest fire in view of shifting winds; or persons in flood areas move to higher land on reports of continued rains.

A study of weather and how it affects human living may be carried on thru experimentation with tens and elevens. Science experiments within the understanding of this age level group are numerous. Thru such experimentation a better understanding of

the simple elements of weather, as wind, temperature, air pressure, humidity, clouds and storm, their causes and effects may be gained. An examination of daily newspapers for weather information and listening to radio reports of weather lead to important learnings, and a better understanding of man's dependence upon weather and of his adjustment to it in any part of the world. As children gain in ability to read and note weather signs and to check and verify radio reports and weather maps in newspapers, they will readily see how "fronts" are constantly changing to bring weather differences to surrounding areas. From observations of the diversity of weather in the local environment and from visits made to the local weather station in the community reasons can be gained as to the value of keeping such statistical information over a period of time. That the aggregate of such weather information has served to determine types of climate thruout the world can be readily understood and will serve to distinguish the differences between weather and climate. When world climatic regions are studied on homolographic map projections the many types of climate within any country will take on additional meaning.

To discuss the ethnic backgrounds within a group of ten and eleven year old children is to evince keen interest about the countries from which their immediate parents, grandparents, or ancestors stemmed. With attention to the aforesaid areas of climate and the physiographic features of the geographic environment having been developed, discussions may readily tend to center on these particular phases. Children may wish to form themselves into committees, each committee electing to study a country of its own ancestral background. In studying several countries simultaneously, they will tend to grasp comparisons more easily and to live within the whole world as it exists today, rather than in one isolated corner at a time. Available floor space and wall bulletins in the classroom could be utilized and given over to these committees to center attention on the map activities which tell or relate the physiographic or climatic types of environment within which the people of these countries lived. In their studies about these countries, representatives from each committee might talk on the geography of the country being studied, reporting on what the people of the country had to work with in the natural environment and trying to judge these effects upon the life and customs of the people. Brief history reports, to get some understanding of the background and traditions of the country, could be woven into the talks to give added stimulus

and would serve as judgments of the comparisons made.

With these ideas as a foundation, a study of the people and their present life in these countries today could be made. The new edition of the *World News Map of the Week,* which is a color map of the world spotting news from the previous week and especially designed for the elementary level, could be used and related to these studies and activities.

In order to build these learnings more deeply into their living, the activities of the committees could be connected with the school life in general. Programs, using map projections on slides, in which the children shared their learnings about the geographic environment and how it affects the lives of the people in these countries could be given to other groups. After they have served their purposes as learning experiences within the classroom, maps on which the committees worked could be hung on walls in the corridors or bulletins of the school. Such maps would provide decorative motifs to enliven the immediate environment of the school as a whole.

While I have placed emphasis on the physiographic and climatic factors in the enivironment to be developed with ten and eleven year olds, I am not unmindful that in order to understand any people one must see them in all areas of their experience; such as, means of livelihood, social patterns, government or esthetic achievement. And these areas of experience will be developed as the children grow and plan to learn more about the people of any country. Thus, exploring the geographic environment may become a worthwhile and stimulating experience for both teacher and children.

TOURISM

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NATURE OF THE INDUSTRY

Tourism or the Tourist Industry is relatively new in the United States. American geographies, until recently, have never had to take it into consideration except for Switzerland, the Mediterranean coast of France, and similar foreign places where it has long been developed for the wealthy. Indeed, in former days, in the United States, anyone who put out a sign indicating that tourists would be kept overnight lost caste socially much as if the sign had read, "Wash Wanted." Good roads, automobiles, higher wages, and leisure have made Tourism not only a large but a respectable industry.

It is difficult to obtain accurate figures concerning the value of the tourist industry to a region because the income from it goes into the pockets of so many people and because few official records are kept. Anyone who wants to put out his sign can keep tourists overnight, feed them, or sell them gasoline or products of the farm or handicrafts of the community. This is one of the reasons why the tourist industry is so beneficial to a region. It can seldom be monopolized by large companies. But this also means that in times of depression or gasoline and tire shortages probably many more people suffer from lack of business than would suffer if it were controlled by large concerns. Estimates show that as many as 2,000,000 people visit Florida every winter when times are normal. Tourism probably brings more money into Florida than any other industry. Michigan claims that its summer tourist business is worth more to the state than any other business except the making of automobiles.

ESCAPING WINTER TOURISTS

Tourism can be classified in at least two different ways; according to seasons, and according to the desires of the tourists. Most winter tourists in the United States head for Florida, the west Gulf Coast, or our southwest. Some may find their way into Mexico for a few weeks. Those with plenty of money and time may go to the West Indies, the Bahamas, the Bermudas, or even to the shores of the Mediterranean. Perhaps the future will show a

development of winter tourist interest in South America, but as yet it has been slow to develop because of distance and expense.

No sharp line can be drawn between summer and winter tourist regions; it is, rather, a zone which divides them. We can say that the winter tourist region in the eastern United States begins near Charleston, S.C. and extends southward. On the west Gulf Coast it centers around Corpus Christi. The northern Gulf Coast is a little too cool to attract large numbers of winter tourists but some like to visit New Orleans and the Mobile-Biloxi districts for short periods. Southern California and southwest Arizona attract the winter tourists who go west.

A new type of winter resort business has been developed recently in the United States which has long been popular in Europe. It occurs in favorable spots for skiing, tobogganing, and skating. New England, northern New York, and the northern Lake States have developed it. It has been estimated that in 1938, $24,000,000 was spent for participation in these sports. *Cleared highways, snow trains, and snow buses carry hundreds during week-ends and holidays from the larger cities of the north to these favorite spots. It is fortunate for the areas having this development for it enables hotels, restaurants, and other conveniences for the tourists, to obtain an income during the winter which they never had before. Many of them do not have to board up their windows, hire a winter caretaker, and go elsewhere to make a living during a long closed season.

Escaping Summer Tourists

Summer tourists in the United States plan an itinerary that will include either the North Atlantic Coast from Virginia northward, the highlands of New England and New York, the northern Great Lakes region, Canada, Alaska, the mountains of the West, or the north half of the Pacific Coast. Smaller numbers go for short vacations to the Great Smokies, The Ozarks, and other southern mountains. Most any inland water body of the North draws local people for week-ends or for short vacations. Thousands of cottages and resort properties of various kinds dot the shores of our northern lakes and streams and also many of our northern mountains. Canada exerts every effort to make vacations attractive to tourists of the United States. Alaska is too far away to attract

* Russell Lord, *Forest Outings*, p. 118. U. S. Government Printing Office.

as many summer tourists as it deserves, but it is expected that the new road running east of the Rockies in Canada, connecting the United States and Alaska, will popularize its tourist industry. This would be almost certain if another road were built along the coast of British Columbia to Alaska. Tourists could then go to Alaska on one road and back on another and would experience an unrivaled variety of scenery. It is doubtful that many tourists will want to undertake the long drive if they have to go and come over the same road. They could, of course, come back by water but the expense of such a trip would bar thousands who would like to go to Alaska for a summer vacation.

Southern areas try to get summer tourists along their coast and in their mountains, but it is not likely that they can build up much summer business. Most tourists refuse to take a chance on the heat and humidity of the South when known cool areas are so easily reached.

TOURISM CLASSIFIED BY TOURIST DESIRES

When people have money and leisure and are ready for a vacation, a number of "magnets" begin to pull on them. These "magnets" which compete with each other are: climate, scenery, mountains, ocean shores, the shores of inland water bodies, National Parks and Forests, foreign countries, historical areas, and even the streets and other attractions of large cities. Which one wins depends largely on the likes and dislikes of each tourist family and the time and vacation money available.

Climatic Attractions. As we have observed in the discussion of winter and summer tourists, climate is a strong attraction. People want to go where it is cooler in the heat of the summer and where it is warmer in the cold of winter. Older people who have retired or those who are in poor health are especially attracted by warm climates. Coolness is found in summer in mountains or in the northern lake district, in Alaska, and in Canada. Warmth in winter causes Florida, the Gulf Coast, and the Southwest to be popular. As we have pointed out, the islands of the West Indies and Mexico are also attractive for this reason if one has the money and time to go to them.

Tourists Seeking Health. Some diseases thrive in the heat and dust of summer or in the cold of winter. Accordingly, doctors send hay-fever patients to the northern lakes in summer, sinus and

bronchial patients to the south or southwest in winter, and patients with nervous disorders to any favorable climate. Some types of chronic ailments are cured or lessened in severity by highlands and others by lowland conditions. This all adds to the business of tourism.

Scenery. Many people are lovers of scenery but have no particular interest in the activities which are carried on in each region. Such people just go to look at striking natural features. Mountains, lakes, ocean shores, caves, glaciers, and other physical phenomena are popular with such tourists.

Mountains. Few "magnets" pull stronger on people than do mountains. Thirty of forty years ago, before good roads and the automobile were common, people in level areas tended to look upon mountains with something almost like fear. Children's stories of those days had mountains peopled with gnomes, pixies, and other undesirable characters. Today mountains are pictured as friendly places. We have learned that mountains are really hospitable. Therefore many tourists frequent them both summer and winter. Their attractions are scenery, fishing, hunting, snow and ice sports in winter, and cool weather in summer. On the whole, tho, more tourists use them in summer than in winter.

Ocean Shores. Ocean shores attract thousands of vacationists. Our northern shores are summer "magnets," and Florida, the Gulf Coast, and southern California pull in winter. Swimming, boating, fishing, automobile racing, hiking, shore dinners, or just lying around in bathing suits and soaking up the sun are the main attractions. Even some diseases are cured or made less severe by breathing the salty air of the sea coast. Since there are two types of coasts, the submerged and the emerged, interests vary with each. A submerged coast is irregular with many bays, promontories, and usually off-shore islands. An emerged coast is regular and has few indentations, but it usually has numerous sandy beaches. By comparing these differences with the interests previously stated, can you tell which amusements are popular at each type of coast?

Inland Waters. probably more people use our inland waters than use ocean shores for vacations because inland water sites are within easy reach. Tourists and people who have week-end vacations enjoy the bathing, boating, fishing, and cooler summer air near these waters. Our northern lakes and rivers, as well as those of Canada attract vacationists in summer as do the southern lakes and streams in winter. Thousands of cottages line the shores. The posses-

sion of these lakes and rivers by a region gives it an important tourist industry.

National Parks. The United States has many national parks. These features are mostly in our West and are too distant for many of our people to reach easily if they live in the East. Some are now being established in the East. A National Park is established by the act of Congress and such an act sets aside a scenic area of the United States for recreational interests so that none of its natural resources except the scenery, climate and replaceable wild life can be utilized. The best known and most popular western parks are: Yellowstone in Wyoming, Montana, and Idaho; Glacier National in Montana; Rocky Mountain in Colorada; Grand Canyon in Arizona; Yosemite in California. In the East are the Great Smokies, Shenandoah, Adirondacks, Isle Royal and the White Mountains. Can you locate these parks? Thousands of visitors are attracted to these national playgrounds by the scenery, the climate, and often by good fishing.

National Forest as Vacation Centers. National Forests are set aside by act of the President of the United States on government-owned land. If the land must be bought from private owners, it takes an appropriation from Congress to establish the forest. Most of them are in the West, for that is where the largest tracts of government-owned land are located. It was there also that timber was still standing when the first national forests were established. Many are now being established on the hill and mountain lands of the East, but usually the land has to be bought from private owners. Many people prefer a vacation in a national forest to one in a national park because there is, as yet, more freedom than one is allowed in a national park. Conditions are more primitive, and the regulations there are concerned chiefly with fire and game laws. One may camp in wild places that are not overrun by people, as are many of the national parks.

Foreign Travel. For years many people have been attracted by travel in foreign countries. Peacetime conditions along with prosperous economic conditions have long been conducive to this business. Organizations like Thomas Cook and Sons, the American Express Company, and Wagon-Litts have grown up to care for it. At its best, it has attracted but few as compared with the other types of tourist trade which we have discussed. It takes considerable money and long vacations to see much of foreign countries.

Historical Monuments. There are always many people who enjoy

looking at scenes and landmarks that have historical significance. New England, in particular, capitalizes on this. Plymouth Rock, Concord, and Bunker Hill are examples of places that attract tourists who are interested in history. Europe is full of such places and will now have many more. Closely associated with historical monuments are historical museums and places like Williamsburg, Virginia, which has been restored to picture past history.

Great Cities. Great cities interest many people and draw thousands of visitors. Some go to Broadway to see its night life and to attend its theaters. Some go to visit large industrial plants such as the automobile factories of Detroit or the iron and steel mills of Cleveland. Many go to just lose themselves temporarily among thousands of people and to absorb the impersonality and the personality of large cities.

THE FUTURE OF THE TOURIST INDUSTRY

The future of the tourist industry depends upon the peace and prosperity of the world. With these conditions present, people are going to spend much more time in travel than ever before. Thousands want to see parts of our own country that they have never seen. Canada, Mexico, Alaska, the West Indies, and other Caribbean lands will draw many. South America awaits for its share. Thousands will want to visit the battfields and war cemeteries of Europe. Even far-off Asia, Australia, and Africa will draw their quota of round-the-world tourists. If we can have a world at peace and a high standard of living for its people, there is almost no limit to Tourism.

Probably when European countries have had a few years to recover from the ravages of World War II, we shall see more foreign travel than ever before. Round-the-world travel may become cheaper and more popular. The airplane is sure to play a great part in decreasing both the cost and time involved in trips to foreign lands.

THE NATIONAL COUNCIL AT WORK

FUNCTIONAL COMMITTEES

As pointed out in the organization page in the February issue of the JOURNAL, the realization of the aims of the National Council depends in a great measure upon the effective organization and operation of committees. Their number must be adequate—one for each important function of the organization. Over a dozen such committees now exist, several new ones having been added at the Board meeting in Columbus.

How well the committees function will, of course, largely depend upon the committee personnel. Selections have been and are being made upon careful scrutiny of interests, aptitudes, ability, and experience. On the administrative side, it is well to distinguish between those committees which are committed to a specifically defined project to be accomplished within a definite period of time, and those committees whose functions cover a wider range of problems the consideration of which face ever new situations, continuing challenges, and therefore constitute a perpetual program from one year to the next.

In terms of progressively and permanently constructive accomplishments, committee work finally should become a matter of record. Such record, particularly in the cases of continuing projects dealing with far-reaching programs, should be appropriately publicized. Valuable findings, observations, conclusions, and recommendations have no wide and attractive appeal or lasting usefulness when such studies remain in mimeographed form in a limited number of the Council members' files.

In line with these principles and policies two new committees were created at the Columbus meeting—the Planning Committee and the Publications Committee.

The duties of the Planning Committee shall be to survey the present and prospective program of the National Council and report to the Executive Board thereon prior to the next annual meeting. The Committee will investigate the overall problems and potentialities of the Council, propagate and integrate its various activities, and guarantee a functional continuity of the general administrative program of the Council. It is hopefully expected that this Committee will see to it that what gains are accomplished in one year or several years by committees whose projects are interminably connected with promoting geographic research, curricula, teacher preparation standards, etc., will not be subsequently lost by the lapse of such programs.

The Planning personnel consists of officials noted for their proven ability and activity in Council affairs: Miss Alice Foster, University of Chicago, Chicago, Illinois; Mrs. Katheryne Thomas Whittemore, State Teachers College, Buffalo, New York; Thomas F. Barton, Southern Illinois Normal University, Carbondale, Illinois.

The other new committee referred to—the Publications Committee—shall plan a publications program in the field of geographic education to be sponsored by the National Council; review manuscripts submitted to it for publication by the National Council and make recommendations thereon to the Executive Board. The Committee shall also review requests for grants-in-aid from the Publication Fund for the publication of materials in geographic education and make recommendations thereon to the Executive Board. Appointments to this Committee will be announced in the next issue of the JOURNAL.

ALFRED H. MEYER, *President*

GEOGRAPHICAL PUBLICATIONS

Earl E. Lackey and Esther S. Anderson. **Regions and Nations of the World.** D. Van Nostrand Company, New York, 1946. 489 pp., maps and illustrations, appendix and index. $4.75

This text is intended for use in college for a course in world geography. The reviewer believes that such a course would have high value especially in teacher training institutions, schools of journalism, etc., for students who are not taking separate courses on each continent yet who need some information about the whole world.

The chief basis used by Lackey and Anderson for the divisions into regions is physiographic. They describe the chief coast and interior plains, highlands, mountains, and intermontane regions of each continent. The relation of man to physical features is emphasized as is also the role of man in the development of the present land-use landscapes. Sketch maps that locate the essential physical features, cities, and other facts for many selected portions of continents supplement the text. Numerous illustrations and graphs add to the value of the book. A summary of world climates, natural vegetation, and soils is included in the appendix. The reviewer recommends "Regions and Nations of the World" both as a textbook and brief general reference work. Large size of print and pages together with a very complete index increase the usefulness of the book.

OTIS W. FREEMAN

Eastern Washington College of Education

Fern E. Dorris and M. Virginia Tapp. **Learning to Look at Our World.** 186 pp., 54 photographs and numerous illustrations. Silver Burdett Company, New York. 1942. $.96.

This delightful little book planned for third grade use helps lay the foundation for geography work at higher levels. It shows simple relationships between the people that the children know and the natural environment of the part of the earth where they live. The elements of the natural environment include the land, the water, the sky, the seasons, the weather, the plants, trees and grass, and the animals.

This is not a geography of the United States but rather a local geography. In a way it may be called "home" geography.

The many illustrations by Kurt Werth will aid the children much in gaining concepts. Fifty-four photographs also facilitate in presenting ideas and in clarifying concepts.

Some of the statements need to be modified in order to make them accurate. One might suggest that more pains should have been taken in the writing and also in at least one illustration. However, one is pleased to find in "Learning to Look at Our World" a book entirely unstilted.

It is my feeling that teachers of any of the primary grades will find this book helpful in many ways.

ANNA C. LARSON

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